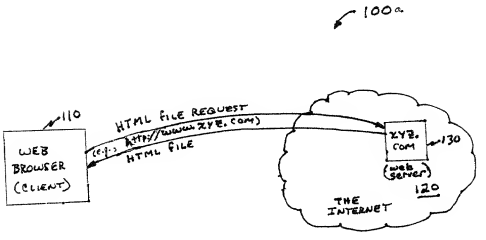


(PRIOR ART)

FIG. 1A

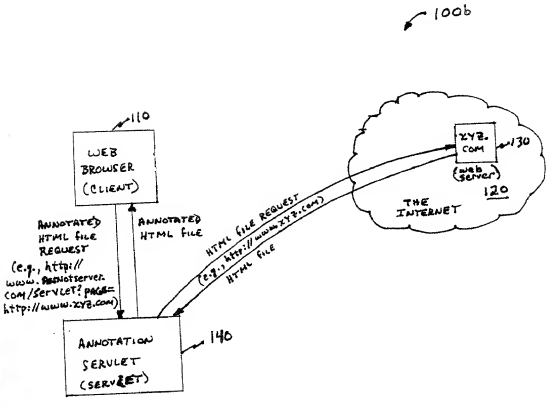

100b
110
WEB BROWSER (CLIENT)
ANNOTATED HTML FILE REQUEST
(e.g., http://www.ANNOTserver.com/servlet?PAGE=http://www.XYZ.com)
ANNOTATED HTML FILE
HTML FILE REQUEST (e.g., http://www.XYZ.com)
HTML FILE
ANNOTATION SERVLET (SERVLET)
140
XYZ.COM
(web server)
130
THE INTERNET
120

FIG. 1B

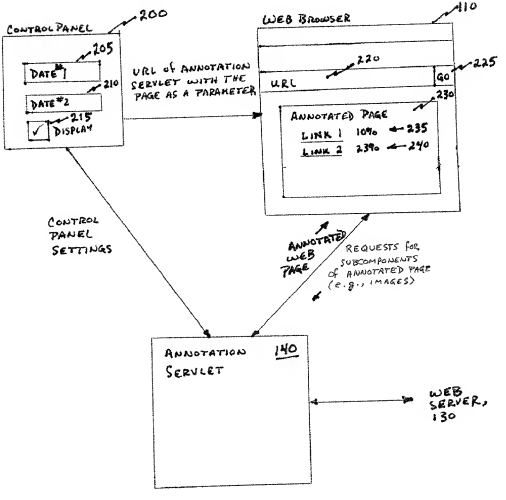

CONTROL PANEL
200
205
DATE #1
210
DATE #2
215
DISPLAY
URL of ANNOTATION SERVLET WITH THE PAGE AS A PARAMETER
WEB BROWSER
110
220
URL
GO
225
230
ANNOTATED PAGE
LINK 1 URL 235
LINK 2 URL 240
CONTROL PANEL SETTINGS
ANNOTATED WEB PAGE
REQUESTS for SUBCOMPONENTS of ANNOTATED PAGE (e.g., IMAGES)
ANNOTATION SERVLET
140
WEB SERVER, 130

FIG. 2

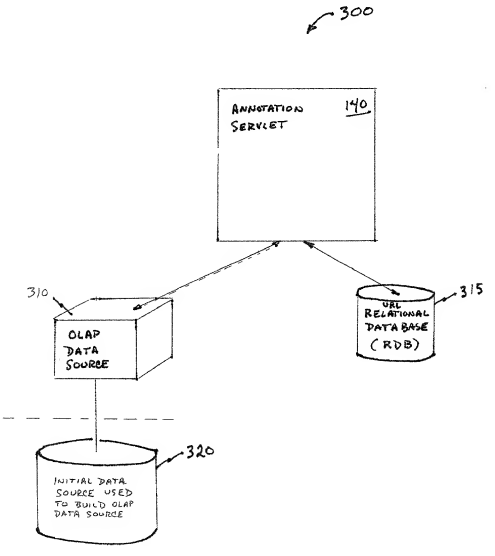
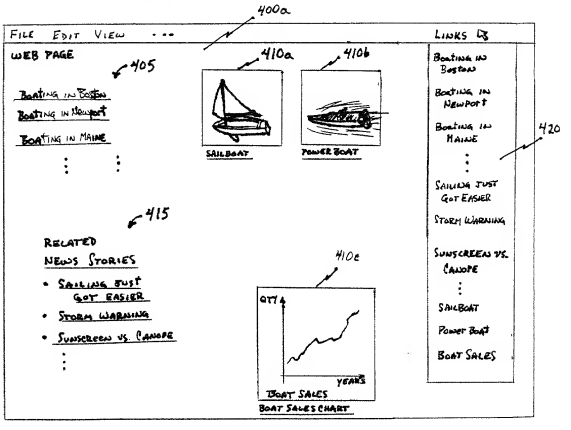

300
ANNOTATION SERVLET
140
310
OLAP DATA SOURCE
315
URL RELATIONAL DATA BASE (RDB)
320
INITIAL DATA SOURCE USED TO BUILD OLAP DATA SOURCE

FIG. 3



(PRIOR ART)

FIG. 4A

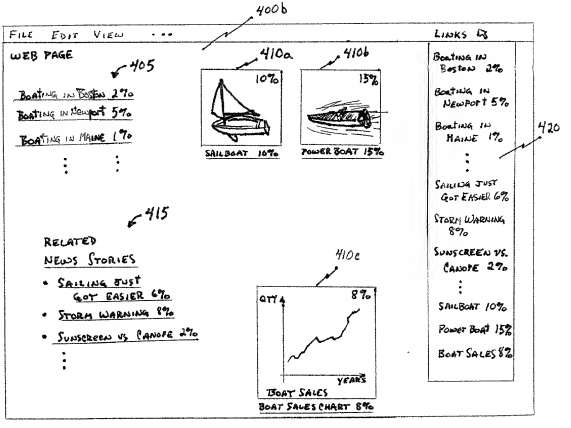

400b
FILE EDIT VIEW ...
LINKS
WEB PAGE
405
BOATING IN BOSTON 2%
BOATING IN NEWPORT 5%
BOATING IN MAINE 1%
410a
10%
SAILBOAT 10%
410b
15%
POWER BOAT 15%
BOATING IN BOSTON 2%
BOATING IN NEWPORT 5%
BOATING IN MAINE 1%
420
SAILING JUST GOT EASIER 6%
STORM WARNING 8%
SUNSCREEN VS. CANOPE 2%
SAILBOAT 10%
POWER BOAT 15%
BOAT SALES 8%
415
RELATED NEWS STORIES
• SAILING JUST GOT EASIER 6%
• STORM WARNING 8%
• SUNSCREEN VS CANOPE 2%
410c
QTY
8%
YEARS
BOAT SALES
BOAT SALES CHART 8%

FIG. 4B

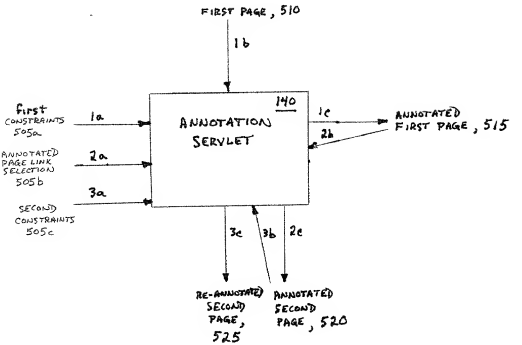

FIRST PAGE, 510
1b
140
ANNOTATION SERVLET
First CONSTRAINTS 505a
1a
ANNOTATED PAGE LINK SELECTION 505b
2a
SECOND CONSTRAINTS 505c
3a
1c
ANNOTATED FIRST PAGE, 515
2b
3c
3b
2c
RE-ANNOTATED SECOND PAGE, 525
ANNOTATED SECOND PAGE, 520

FIG. 5

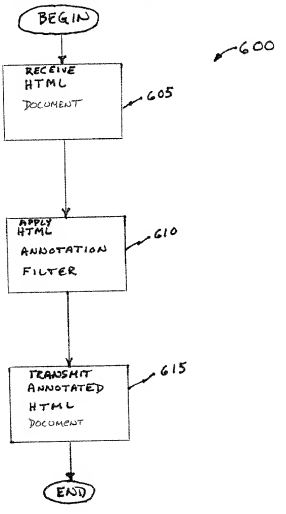

BEGIN
600
RECEIVE HTML DOCUMENT
605
APPLY HTML ANNOTATION FILTER
610
TRANSMIT ANNOTATED HTML DOCUMENT
615
END

FIG. 6

700a

EXAMPLE HTML DOCUMENT PRIOR TO ANNOTATION

705 → <html>

710 → <title> XYZ HOMEPAGE </title>

715 → <BODY>

720a → <IMg SRC = "flower.jPg" href = "page2.html">

725a → CLICK ME

730 → </BODY>

735 → </html>

FIG. 7A

EXAMPLE HTML document AFTER ANNOTATION

700b

705 → <html>

710 → <title> XYZ · HOMEPAGE </title>

715 → <BODY>

720b → <img src= "AnnotateServlet?img=flower.jpg+pct=20"
href= "AnnotateServlet?page=page2.html">

725b → <font bgcolor
= "red" > CLICK ME (10%)

730 → </BODY>

735 → </html>

FIG. 7B

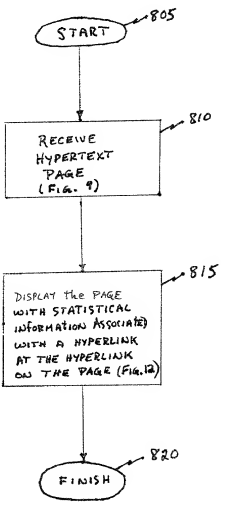

800
START
805
RECEIVE HYPERTEXT PAGE (FIG. 9)
810
DISPLAY THE PAGE WITH STATISTICAL INFORMATION ASSOCIATED WITH A HYPERLINK AT THE HYPERLINK ON THE PAGE (FIG. 12)
815
FINISH
820

FIG. 8

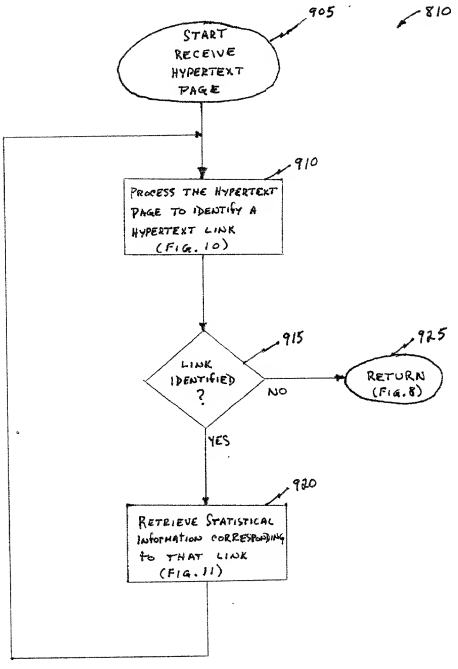


FIG. 9

Redacted

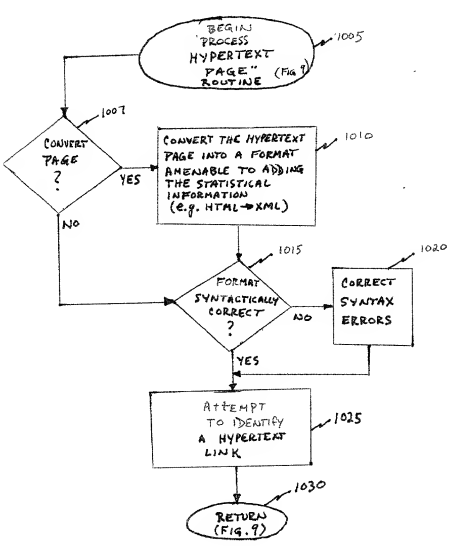

910
BEGIN PROCESS HYPERTEXT PAGE" ROUTINE (Fig 9)
1005
1007
CONVERT PAGE ?
YES
NO
CONVERT THE HYPERTEXT PAGE INTO A FORMAT AMENABLE TO ADDING THE STATISTICAL INFORMATION (e.g. HTML→XML)
1010
1015
FORMAT SYNTACTICALLY CORRECT ?
NO
YES
1020
CORRECT SYNTAX ERRORS
ATTEMPT TO IDENTIFY A HYPERTEXT LINK
1025
1030
RETURN (Fig. 9)

FIG. 10

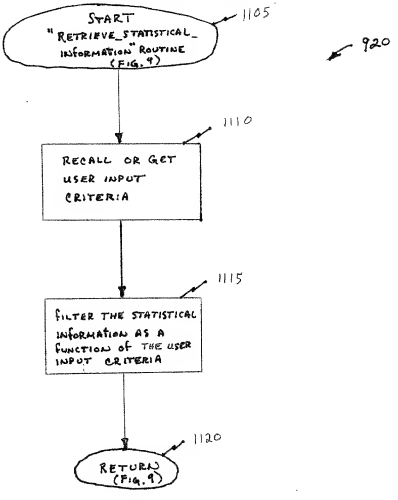

START
"RETRIEVE_STATISTICAL_INFORMATION" ROUTINE (FIG. 9)
1105
920
1110
RECALL OR GET USER INPUT CRITERIA
1115
FILTER THE STATISTICAL INFORMATION AS A FUNCTION OF THE USER INPUT CRITERIA
1120
RETURN (FIG. 9)

FIG. 11

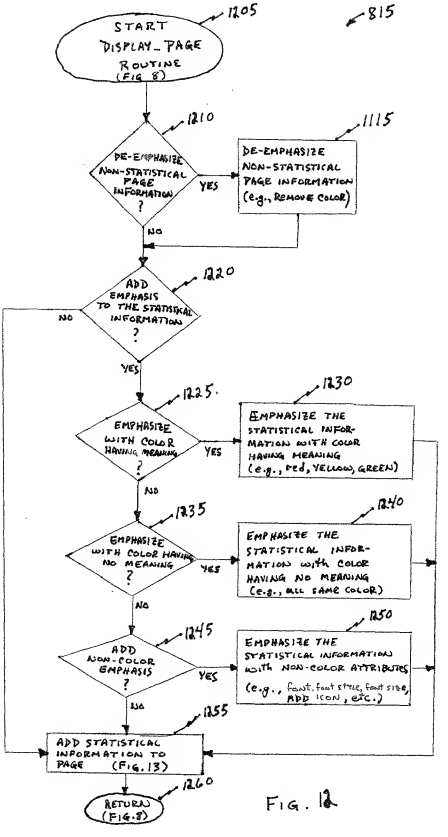

START DISPLAY_PAGE ROUTINE (FIG 8)
1205
815
DE-EMPHASIZE NON-STATISTICAL PAGE INFORMATION ?
1210
YES
DE-EMPHASIZE NON-STATISTICAL PAGE INFORMATION (e.g., REMOVE COLOR)
1115
NO
ADD EMPHASIS TO THE STATISTICAL INFORMATION ?
1220
NO
YES
EMPHASIZE WITH COLOR HAVING MEANING ?
1225
YES
EMPHASIZE THE STATISTICAL INFORMATION WITH COLOR HAVING MEANING (e.g., RED, YELLOW, GREEN)
1230
NO
EMPHASIZE WITH COLOR HAVING NO MEANING ?
1235
YES
EMPHASIZE THE STATISTICAL INFORMATION WITH COLOR HAVING NO MEANING (e.g., ALL SAME COLOR)
1240
NO
ADD NON-COLOR EMPHASIS ?
1245
YES
EMPHASIZE THE STATISTICAL INFORMATION WITH NON-COLOR ATTRIBUTES (e.g., Font, Font style, Font size, ADD ICON, etc.)
1250
NO
ADD STATISTICAL INFORMATION TO PAGE (FIG. 13)
1255
RETURN (FIG. 8)
1260

FIG. 12

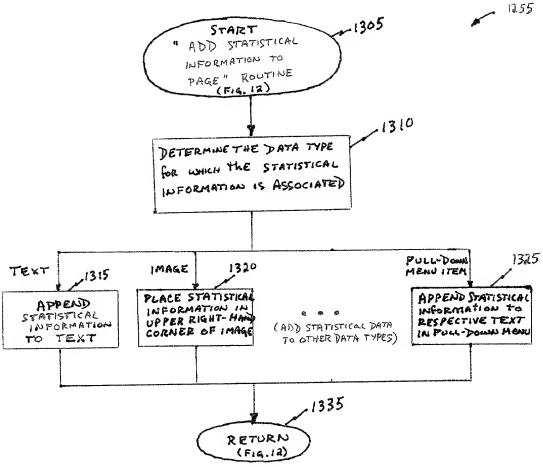

1255
START "ADD STATISTICAL INFORMATION TO PAGE" ROUTINE (FIG. 12)
1305
DETERMINE THE DATA TYPE FOR WHICH THE STATISTICAL INFORMATION IS ASSOCIATED
1310
TEXT
1315
APPEND STATISTICAL INFORMATION TO TEXT
IMAGE
1320
PLACE STATISTICAL INFORMATION IN UPPER RIGHT-HAND CORNER OF IMAGE
(ADD STATISTICAL DATA TO OTHER DATA TYPES)
PULL-DOWN MENU ITEM
1325
APPEND STATISTICAL INFORMATION TO RESPECTIVE TEXT IN PULL-DOWN MENU
1335
RETURN (FIG. 12)

FIG. 13

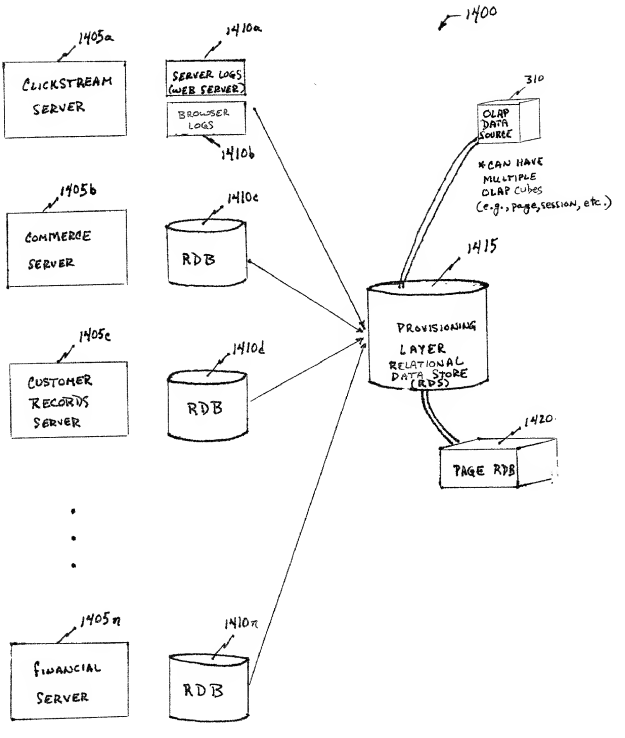

1400
1405a
CLICKSTREAM SERVER
1410a
SERVER LOGS (WEB SERVER)
BROWSER LOGS
1410b
310
OLAP DATA SOURCE
*CAN HAVE MULTIPLE OLAP Cubes (e.g., page, session, etc.)
1405b
COMMERCE SERVER
1410c
RDB
1415
PROVISIONING LAYER RELATIONAL DATA STORE (RDS)
1405c
CUSTOMER RECORDS SERVER
1410d
RDB
1420
PAGE RDB
1405n
FINANCIAL SERVER
1410n
RDB

FIG. 14